### What is MTM?

Manaaki Taha Moana (MTM) is a research programme to restore and enhance coastal ecosystems and their services of importance to iwi/hapu, through a better knowledge of these ecosystems and the degradation processes that affect them.

We utilise Western Science and Mātauranga Maori knowledge and participatory modelling tools and processes to assist iwi/hapu to evaluate and define preferred options for enhancing/restoring coastal ecosystems. This evaluation of options is assisted by innovative IT and decision support tools (e.g. digital libraries, simulation modelling, interactive mapping, 3D depiction, real-time monitoring).

Action plans are being produced for improving coastal ecosystems in each rohe.

The research team works closely with iwi/hapu in the case study regions to develop tools and approaches to facilitate the uptake of this knowledge and its practical implementation.

Mechanisms will also be put in place to facilitate uptake amongst other iwi throughout NZ.













### **Research Providers:**

School of People Environment and Planning, Massey University

Tajao Raukawa Trust

Manaaki Te Awanui Trust

Waka Digital Ltd

Cawthron Institute

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www.mtm.ac.nz



# MANAAKI TAHA MOANA: ENHANCING COASTAL **ECOSYSTEMS FOR IWI**

MTM Report No. 19



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## Manaaki Taha Moana (MTM)

is a collaborative, action and kaupapa Māori research project that uses and bolsters Mātauranga Māori or local Māori knowledge systems of place within whenua (lands), awa (waterways), repo (wetlands) and moana (seas and harbours).

The Horowhenua MTM research activity centers on an area of interrelated hapū (collective of multiple whanau groups), within a southwest coastal rohe (region) that was once extensive coastal forest, with streams, rivers, estuaries, a series of lakes, lagoons and dune wetlands that once teemed with freshwater food and fibre resources and kaimoana (tidal & marine resources).

The coastal, cultural landscape is bounded by the Tasman Sea and extends from the Hōkio Stream in the North, to the dynamic Waitohu Stream, wetland and estuary at Ōtaki in the South.

Six action research projects are underway, encompassing:

- \*back dune system with associated dune lake, namely Lake Waiorongomai;
- \*wetlands with streams into riverine estuaries such as Te Hākari dune wetland and neighbouring wetland system towards Waikawa River;
- \*river meanders with taonga habitat restoration as with the Ōhau Loop Inanga/ Whitebait;
- \*ephemeral wetlands into riverine estuaries as with the Kuku Ōhau estuary frontage;
- \*Waiwiri stream from Lake Waiwiri (Papaitonga) into the sea; and
- \*health and abundance of shellfish habitat due to land use impacts between Hōkio to Waitohu Streams.

This report provides an overview of the research that has been undertaken in each of these case studies, the participatory action research methods employed, and the restoration initiatives that are occurring.



For more information
about the research being
conducted in the MTM
Horowhenua case study,
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